Rapid mobilisation against an old acquaintance with a new face

Are we facing an epidemic of viral emergences? It may well be the case. With the COVID-19 pandemic not yet over, another unexpected viral outbreak has been affecting 29 countries among the EU/EEA area since May 2022 (as of 29 August 2022)[1]. The Monkeypox virus is the latest to date to be added to the list of emerging viruses. It is not a newly discovered virus as "*Monkeypox in captive primates was first described in 1959 [von Magnus et al., 1959], and a number of other outbreaks occurred in the early 1960s. The close resemblance between its clinical manifestations and those of smallpox in humans focused the attention of the Smallpox Eradication Unit of the World Health Organization on monkeypox virus as a potential threat to the smallpox eradication programme [Arita and Henderson, 1968]*"[2]. "*This rare sporadic zoonosis could not have been recognized until smallpox had been eliminated*"[2]. "*Following its recognition in 1970, it was clear to the Smallpox Eradication Unit of the World Health Organization that the public health significance of human monkeypox would have to be evaluated as part of the campaign to certify smallpox eradication, and a start was made in the early 1970s*"[2].

Population immunity to orthopoxviruses (the group of closely related viruses including in addition to monkeypoxvirus: smallpoxvirus, cowpoxvirus) has waned inexorably since the eradication of smallpox and end of its vaccination programme. As nature despises vacuums, the medical and scientific community was expecting a rise in the number of detected orthopoxvirus cases. They remained at low levels for many years in endemic countries until a recent wake-up call. In 2017 the number of cases detected in Nigeria soared to unprecedented levels and carried on at worryingly high levels in subsequent years[3]. In the course of time it became apparent that the cases of monkeypoxvirus (MPX) infections were no longer limited to children, as older patients also became infected[4]. The good news at the time was that the outbreak in Nigeria was not due to a single source, but to many independent outbreaks with different origins and starting points. However, in 2018 and 2019 we witnessed the exportation of MPX outside its geographical cradle. In the UK in particular we saw the first signs of the Clade II virus becoming more prone to inter-human transmission[3]. The news did not stop there and in May 2022 the alarm was rung by the UK Health Authorities. An outbreak of MPX with sustained and efficient human to human transmission was identified, with both epidemiological and clinical features that were quite new. The speed and geographic spread of the outbreak led the WHO Director-General Tedros Adhanom Ghebreyesus to declare Monkeypox as a Public Health Emergency of International Concern (PHEIC) on July 23, 2022. Prevention and control measures were quickly implemented in the most affected countries. In Western Europe in particular, the deployment of a vaccination

programme using a 3rd generation MVA vaccine was unveiled, directed to the most affected parts of the population.

A vast and prompt mobilisation is now in place to try to contain the spread of the disease. The scientific community continues to share its responsibility in this mobilisation. The Office of Science and Technology Policy in the United States has issued a Call for Public Access to Monkeypox-related Research and Data. This call is coordinated with science and technology leaders from 22 countries, including the European Commission, and includes a direct message to the scholarly publishing industry on immediate access to scholarly materials[5].

Karger Publishers decided to create a 'Free Access' collection on 'the history of Monkeypox, with our previously published articles and book. The monograph directed by Zdenék Jezek and Frank Fenner, published in 1988, is extremely interesting from many viewpoints, and has put the current outbreak in historical and scientific perspective through its 7 chapters. The text quoted in italic at the beginning of this commentary is directly taken from the book. Some questions raised at the time are still pending. For younger virologists, it is also interesting on a technical level to understand how powerful results were obtained prior to the wake of PCR and easy access to genome sequencing.

We hope you enjoy the read.

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